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EXAMINER

RYMAN, DANIEL J

ART UNIT

PAPER NUMBER

2665

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Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No. ☒

09/545,888

Applicant(s)

KOYAMA, AKIRA

Examiner

Daniel J. Ryman

Art Unit

2665

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 12-14, 16 and 17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11, 15 and 18-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed 2/2/2005 have been fully considered but they are not persuasive. On page 11 of the Response, Applicant argues that "constructive withdrawal of claims would be improper, unless the Examiner provides, on the record, a proper restriction under MPEP § 806.05 for a combination/subcombination." Examiner, respectfully, disagrees. Examiner directs Applicant to 37 CFR 1.145 and MPEP § 821.03, which provide the statutory basis for restriction based on original presentation.
2. Applicant also argues that, "for at least dependent claims 12, 13, 14, their respective parent claims is inherently a generic claim." Applicant seems to be arguing that since claims 12-14 are dependent claims, Examiner should enter these claims simply because the independent claim has been entered. Examiner, respectfully, disagrees. Applicant wants claims 12-14 entered even though claims 12-14 are directed to the same invention as claims 16-17, which would not be entered. Apparently, Applicant is trying to circumvent MPEP § 821.03 by adding the additional invention using dependent claims rather than independent claims. Here, Applicant added claims directed to a distinct or independent invention that was not part of the claims originally presented. Therefore, Applicant is required to withdraw this newly added claims.
3. Applicant further argues and "Examiner's position that the scope of claim coverage cannot deviate from the original claim set is not supported by MPEP § 2163.05 and § 2164.08 or by common patent practice." Applicant has misconstrued Examiner's position. Examiner agrees that the scope of claim coverage can deviate from the original claim set. However, Examiner disagrees that this deviation permits Applicant to add additional inventions to the invention

Art Unit: 2665

presented in the original claim set. For example, in the present case, Examiner entered claims 15 and 18-20, which were not part of the original claim set, and which changed the scope of claim coverage. Examiner did not enter claims 12-14, 16, and 17 which are directed to implementing a plug-and-play functionality on a system, because, for reasons set forth below, claims 12-14, 16, and 17 are directed to an invention that is distinct or independent from the invention set forth in the original claim set. Therefore, the restriction is proper.

4. Applicant's arguments with respect to claims 1-7, 9-11, and 18-20 have been considered but are moot in view of the new ground(s) of rejection.

5. On page 14, with respect to claim 6, Applicant argues that "the rejection fails to properly point to a terminal device in Shima having two asynchronous interfaces and two isochronous interfaces, one each for a telephone and television set, in combination with a unique telephone number." Specifically, Applicant argues that "if the Examiner wishes to rely upon the concept of integration into a single unit, then he cannot arbitrarily declare that certain aspects are considered obvious to integrate but other aspects are considered obvious to segregate." Examiner, respectfully, disagrees with Applicant's argument. Here, Examiner asserts that it would have been obvious to combine a telephone and television into a single terminal. However, it is implicit that an individual telephone and an individual television would each have its own set of interfaces. Thus, when housing both the telephone and television in a single unit, the simplest construction would be to have each device retain its original set of interfaces. Thus, Examiner is not "integrating" certain aspects and "segregating" other aspects. Rather Examiner is merely integrating two devices, but retaining the devices' original interfaces.

Art Unit: 2665

6. On page 14, with respect to claim 15, Applicant argues that Glowny is not applicable prior art due to this Application's priority date. Thus, Examiner submits Lee et al. (USPN 6,049,539) which teaches the use of a billing interface for transmitting billing information (col. 7, lines 25-38). Thus, Examiner maintains that it is well known in the art for a digital television service to transmit billing information.

7. If Applicant does not traverse the Examiner's assertion of official notice or Applicant's traverse is not adequate, then the common knowledge or well-known in the art statement is taken to be admitted prior art because Applicant failed to traverse the Examiner's assertion of official notice or that the traverse was inadequate (see MPEP §2144.03(c)).

#### ***Election/Restrictions***

8. Claims 12-14, 16, and 17 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: Claims 12-14, 16, and 17 disclose an invention pertaining to providing a plug and play feature which is a subcombination of the originally presented invention pertaining to a network switching system.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 12-14, 16, and 17 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

#### ***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

Art Unit: 2665

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1-7, 10, 11, 15, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shima et al (USPN 6,456,714) in view of Edholm (USPN 6,449,269) in further view of Akatsu et al (USPN 6,496,862).

11. Regarding claim 1 and 10, Shima discloses a network switching system, comprising: a gateway (ref. 230) (col. 2, lines 8-38 and col. 3, lines 10-56); one or more extension nodes (ref. 110-150, 230), each identified with a unique physical identifier (col. 2, lines 8-38; col. 3, line 60-col. 4, line 3; col. 4, lines 20-29; and col. 5, lines 16-20) where transmitting information to particular devices indicates that each device has a unique identifier; and a serial bus interconnecting said gateway and said one or more extension nodes, wherein stream data transferred on said serial bus are exchanged through said gateway between an outside line and an extension node, or between a first extension node and a second extension node (col. 2, lines 8-38; col. 3, line 10-col. 4, line 3; and col. 4, lines 20-29), wherein at least one said extension node (ref. 230: peripheral unit) comprises: a control/memory unit for storing physical identifiers of said gateway node and extension nodes and for controlling said network (col. 5, lines 1-20; col. 5, lines 54-67; and col. 7, lines 4-35), where the peripheral unit, as broadly defined, can be viewed as an extension node (col. 3, lines 38-42); an asynchronous interface, for selecting said extension node, connected with said control/memory unit (col. 5, lines 10-20); a rate conversion unit for converting a data rate of said stream data in said network into that in said outside line, or for converting a data rate of stream data in said outside line into that of said network switching system (col. 4, lines 30-42; col. 5, lines 1-20; and col. 6, line 37-col. 7, line 35); and an

Art Unit: 2665

isochronous interface, for transmitting and receiving said stream data, connected with said rate conversion unit (col. 5, lines 36-40).

Shima does not expressly disclose that each extension nodes is identified with a unique physical identifier and selectively identified with a unique telephone number comprising at least one of a simplified exchange telephone number and an actual telephone number or that the control/memory unit of the extension node stores telephone numbers of said gateway node and extension nodes thereby allowing said at least one extension node to transmit and receive stream data from outside telephone numbers and from telephone numbers of other extension nodes. However, Shima does disclose that the system is identified using a telephone number (col. 5, lines 5-6) and that the devices in the network can comprise multiple telephonic devices (col. 3, lines 38-42 and col. 5, lines 16-20). Shima also discloses directing voice calls to particular devices (col. 5, lines 16-20) and using a telephone number to direct a call to a particular destination device (col. 5, line 54-col. 6, line 5). Edholm teaches, in a communication system, that each telephone enabled node is identified with a unique physical identifier (IP address) and selectively identified with a unique telephone number comprising at least one of a simplified exchange telephone number and an actual telephone number (key sequences) (col. 5, lines 24-30; col. 6, lines 47-60; and col. 8, line 63-col. 9, line 5, esp. col. 9, lines 2-5). Edholm also teaches that the control/memory unit of the telephone enabled node stores telephone numbers of called nodes thereby allowing said at least one telephone enabled node to transmit and receive stream data from telephone numbers of other telephone enabled nodes (col. 5, lines 24-30; col. 6, lines 47-60; and col. 8, line 63-col. 9, line 5, esp. col. 9, lines 2-5). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to identify each extension node with

Art Unit: 2665

a unique physical identifier and to selectively identify each extension node with a unique telephone number comprising at least one of a simplified exchange telephone number and an actual telephone number and to store, in the control/memory unit of the extension node, telephone numbers of said gateway node and extension nodes thereby allowing said at least one extension node to transmit and receive stream data from outside telephone numbers and from telephone numbers of other extension nodes in order to permit external parties to direct a call to a specific extension node.

Shima in view of Edholm does not disclose that the asynchronous interface controls a switching timing; however, Shima in view of Edholm does disclose that control signals are sent over the asynchronous interface (Shima: col. 5, lines 1-20). Akatsu teaches, in an IEEE 1394 system, that controlling a switching timing is part of the IEEE 1394 protocol (col. 2, line 40-col. 3, line 13 and col. 5, line 4-col. 6, line 31). It would have been obvious to one of ordinary skill in the art at the time of the invention to control the switching timing over the asynchronous interface since controlling switching timing is part of the IEEE 1394 protocol.

12. Regarding claim 2, Shima in view of Edholm in further view of Akatsu suggests that at least one said extension node further comprises: a microphone for inputting said stream data; a speaker for outputting said stream data; and a codec, for encoding and decoding said stream data, connected with said microphone, said speaker and said rate conversion unit for encoding and decoding said stream data (Shima: col. 5, lines 1-20 and col. 5, lines 54-67 and Akatsu: col. 3, lines 1-6) where codecs are very well known in the art as a means for performing analog to digital conversion on signals.



Art Unit: 2665

13. Regarding claim 3, Shima in view of Edholm in further view of Akatsu discloses that at least one said extension node further comprises: a stream data take-in unit, for storing said stream data, connected with said rate conversion unit (Shima: col. 4, lines 30-42; col. 5, lines 1-20; and col. 6, line 37-col. 7, line 35); and a stream data processing unit, for processing said stream data, connected with said stream data take-in unit (Shima: col. 5, lines 1-27) where “processing” is a broad term which includes determining if an extension node is capable of receiving the stream.

14. Regarding claim 4, Shima in view of Edholm in further view of Akatsu disclose that the asynchronous interface and said isochronous interface are connected with a bus manager which controls said asynchronous interface, said isochronous interface, said control/memory unit, and said rate conversion unit (Shima: col. 4, lines 30-42; col. 5, lines 1-20; and col. 6, line 37-col. 7, line 35 and Akatsu: col. 2, line 40-col. 3, line 13 and col. 5, line 4-col. 6, line 31, esp. col. 6, lines 16-31).

15. Regarding claim 5, Shima discloses a gateway, comprising: a first switching unit for controlling extension nodes connected with a serial bus for isochronous transfer (col. 2, lines 8-38 and col. 3, line 10-col. 4, line 56); and a second switching unit for exchanging stream data between an outside line and said extension nodes (col. 2, lines 8-38 and col. 3, line 10-col. 4, line 56), wherein: said second switching unit comprises a line manager (micro-controller) and a control/memory unit, said line manager exchanges said stream data between said outside line and at least one of said extension nodes, according to a request from the first switching unit, said first switching unit manages a call-in to said extension node and a call-out from said extension node,

Art Unit: 2665

and each of said at least one extension node is identified by a unique physical identifier (col. 3, line 10-col. 4, line 56; col. 5, lines 1-27; and col. 5, lines 54-67).

Shima does not expressly disclose that each extension nodes is identified with a unique physical identifier and selectively identified with a unique telephone number comprising at least one of a simplified exchange telephone number and an actual telephone number thereby allowing each said extension node to connect with either an outside telephone number or with another extension node. However, Shima does disclose that the system is identified using a telephone number (col. 5, lines 5-6) and that the devices in the network can comprise multiple telephonic devices (col. 3, lines 38-42 and col. 5, lines 16-20). Shima also discloses directing voice calls to particular devices (col. 5, lines 16-20) and using a telephone number to direct a call to a particular destination device (col. 5, line 54-col. 6, line 5). Edholm teaches, in a communication system, that each telephone enabled node is identified with a unique physical identifier (IP address) and selectively identified with a unique telephone number comprising at least one of a simplified exchange telephone number and an actual telephone number (key sequences) (col. 5, lines 24-30; col. 6, lines 47-60; and col. 8, line 63-col. 9, line 5, esp. col. 9, lines 2-5). Edholm also teaches that the telephone enabled node stores telephone numbers of called nodes thereby allowing said at least one telephone enabled node to transmit and receive stream data from telephone numbers of other telephone enabled nodes (col. 5, lines 24-30; col. 6, lines 47-60; and col. 8, line 63-col. 9, line 5, esp. col. 9, lines 2-5). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to identify each extension nodes with a unique physical identifier and to selectively identify each extension node with a unique telephone number comprising at least one of a simplified exchange telephone number and an

Art Unit: 2665

actual telephone number thereby allowing each said extension node to connect with either an outside telephone number or with another extension node in order to permit external parties to direct a call to a specific extension node.

Shima in view of Edholm does not expressly disclose said first switching unit comprises a bus manager connected with an asynchronous interface and an isochronous interface or that the second switching unit comprises a line manager connected with a codec. Akatsu teaches, in an IEEE 1394 system, that the IEEE 1394 protocol includes provisions for a bus manager connected with an asynchronous interface and an isochronous interface (col. 2, line 40-col. 3, line 13 and col. 5, line 4-col. 6, line 31, esp. col. 6, lines 16-31). It would have been obvious to one of ordinary skill in the art at the time of the invention to have the first switching unit comprise a bus manager connected with an asynchronous interface and an isochronous interface since bus managers are part of the IEEE 1394 protocol. Akatsu also teaches that all communications on IEEE 1394 are digital (col. 3, lines 1-6). Examiner takes official notice that codecs are well known in the art as a way to perform analog to digital conversion. It would have been obvious to one of ordinary skill in the art at the time of the invention to have the line manager be connected with a codec in order to ensure that all signals transmitted on the IEEE 1394 bus are digital.

16. Regarding claim 6, Shima discloses an information terminal, comprising: a telephone for transmitting and receiving a telephone signal through a serial bus (col. 5, line 1-col. 6, line 5) and a digital monitor or other digital equipment (col. 3, line 62-col. 4, line 3) where said information terminal includes a memory to store an identifier selectively unique to said information terminal (col. 2, lines 8-38; col. 3, line 60-col. 4, line 3; col. 4, lines 20-29; and col. 5, lines 16-20).

Art Unit: 2665

Shima does not expressly disclose that each information terminal has a memory to store a telephone number selectively unique to the information terminal. However, Shima does disclose that the system is identified using a telephone number (col. 5, lines 5-6) and that the devices in the network can comprise multiple telephonic devices (col. 3, lines 38-42 and col. 5, lines 16-20). Shima also discloses directing voice calls to particular devices (col. 5, lines 16-20) and using a telephone number to direct a call to a particular destination device (col. 5, line 54-col. 6, line 5). Edholm teaches, in a communication system, that each telephone enabled node is selectively identified with a unique telephone number (col. 5, lines 24-30; col. 6, lines 47-60; and col. 8, line 63-col. 9, line 5, esp. col. 9, lines 2-5). Edholm also teaches that the telephone enabled node stores its own identifier and the telephone numbers of called nodes thereby allowing said at least one telephone enabled node to transmit and receive stream data from telephone numbers of other telephone enabled nodes (col. 5, lines 24-30; col. 6, lines 47-60; and col. 8, line 63-col. 9, line 5, esp. col. 9, lines 2-5). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to have, in each information terminal, a memory to store a telephone number selectively unique to the information terminal in order to permit external parties to direct a call to a specific extension node.

Shima in view of Edholm does not expressly disclose a television (TV) set for receiving a TV signal through said serial bus or a bus manager for controlling said serial bus, wherein said bus manager comprises two pairs of an asynchronous interface and an isochronous interface for said telephone signal and said TV signal, respectively. Akatsu teaches, in an IEEE 1394 network, that a terminal may be a television (TV) set for receiving a TV signal through said serial bus (Figs 5 and 6 and col. 6, lines 33-col. 7, line 10). It would have been obvious to one of ordinary

Art Unit: 2665

skill in the art at the time of the invention to have a terminal be a television (TV) set for receiving a TV signal through said serial bus in order to allow a user to watch television. Akatsu also teaches that having a bus manager is a part of the IEEE 1394 protocol (col. 2, line 40-col. 3, line 13 and col. 5, line 4-col. 6, line 31, esp. col. 6, lines 16-31). Thus it would have been obvious to one of ordinary skill in the art at the time of the invention to have a bus manager for controlling said serial bus since this is part of the IEEE 1394 protocol.

Shima in view of Edholm in further view of Akatsu does not expressly disclose that a single terminal houses a telephone, a television, and a bus manager; however, it is obvious to make separate elements integral, see In re Lockhart, 90 USPQ 214 (CCPA 1951) and Howard v. Detroit Stove Works, 150 U.S. 164 (1893). In this case, such a combination results in increased functionality in a single terminal. Thus it would have been obvious to one of ordinary skill in the art at the time of the invention to combine a telephone, a TV, and a bus manager in a single terminal in order to have increased functionality in a single terminal. By housing these elements in a single terminal, it would have been obvious to one of ordinary skill in the art at the time of the invention that the bus manager should comprise two pairs of an asynchronous interface and an isochronous interface for said telephone signal and said TV signal, respectively in order to allow the telephone and the television to operate simultaneously in the single terminal unit.

17. Regarding claims 7 and 18, Shima discloses a gateway comprising: a telephone gateway (col. 5, line 1-col. 6, line 5); a data gateway (col. 6, line 20-col. 7, line 49); wherein: said telephone gateway transfers a telephone signal from a public switched telephone network to a serial bus (col. 5, line 1-col. 6, line 5), and transfers a telephone signal from said serial bus to said public switched telephone network (col. 5, line 1-col. 6, line 5), said telephone gateway

Art Unit: 2665

having a capacity to interconnect to at least one telephone terminal via said serial bus (col. 5, line 1-col. 6, line 5), said data gateway receives a data signal from a data line (col. 6, line 20-col. 7, line 49), and transfers said data signal to said serial bus (col. 6, line 20-col. 7, line 49). Although not expressly disclosed, it is implicit that Shima comprises two pairs of an asynchronous interface and an isochronous interface for transferring said telephone signal and said data signal, respectively (col. 5, line 1-col. 6, line 5 and col. 6, line 20-col. 7, line 49) such that the gateway is able to communicate a data signal and a telephone signal simultaneously.

Shima does not expressly disclose that each telephone terminal is identified with a unique physical identifier and selectively identified with a unique telephone number comprising at least one of a simplified exchange telephone number and an actual telephone number. However, Shima does disclose that the system is identified using a telephone number (col. 5, lines 5-6) and that the devices in the network can comprise multiple telephonic devices (col. 3, lines 38-42 and col. 5, lines 16-20). Shima also discloses directing voice calls to particular devices (col. 5, lines 16-20) and using a telephone number to direct a call to a particular destination device (col. 5, line 54-col. 6, line 5). Edholm teaches, in a communication system, that each telephone enabled node is identified with a unique physical identifier (IP address) and selectively identified with a unique telephone number comprising at least one of a simplified exchange telephone number and an actual telephone number (key sequences) (col. 5, lines 24-30; col. 6, lines 47-60; and col. 8, line 63-col. 9, line 5, esp. col. 9, lines 2-5). Edholm also teaches that the telephone enabled node stores telephone numbers of called nodes thereby allowing said at least one telephone enabled node to transmit and receive data from telephone numbers of other telephone enabled nodes (col. 5, lines 24-30; col. 6, lines 47-60; and col. 8, line 63-col. 9, line 5, esp. col. 9, lines 2-5). Thus, it

Art Unit: 2665

would have been obvious to one of ordinary skill in the art at the time of the invention to control the interconnect by a telephone number identification such that each of said at least one telephone terminal has a unique physical identifier and selectively has a unique telephone number comprising at least one of a simplified exchange telephone number and an actual telephone number in order to permit external parties to direct a call to a specific extension node.

Shima in view of Edholm does not expressly disclose a TV gateway; and a bus manager connected to said telephone gateway and said TV gateway, wherein: the TV gateway transfers said TV signal to said bus manager; and said bus manager comprises two pairs of an asynchronous interface and an isochronous interface for transferring said telephone signal and said TV signal, respectively. Akatsu teaches, in an IEEE 1394 network, that a terminal may be a television (TV) set for receiving a TV signal through said serial bus (Figs 5 and 6 and col. 6, lines 33-col. 7, line 10). It would have been obvious to one of ordinary skill in the art at the time of the invention to have a TV gateway in order to allow television signals to be transported across the bus. Akatsu also teaches that having a bus manager is a part of the IEEE 1394 protocol (col. 2, line 40-col. 3, line 13 and col. 5, line 4-col. 6, line 31, esp. col. 6, lines 16-31). Thus it would have been obvious to one of ordinary skill in the art at the time of the invention to have a bus manager for controlling said serial bus since this is part of the IEEE 1394 protocol. Thus Shima in view of Edholm in further view of Akatsu suggests that the TV gateway transfers said TV signal to said bus manager; and said bus manager comprises two pairs of an asynchronous interface and an isochronous interface for transferring said telephone signal and said TV signal, respectively.

Art Unit: 2665

18. Regarding claim 11, Shima in view of Edholm in further view of Akatsu discloses that the serial bus comprises an IEEE 1394 data bus (Shima: col. 4, lines 20-29 and col. 4, lines 57-67 and Akatsu: col. 2, line 40-col. 3, line 13 and col. 5, line 4-col. 6, line 31).

19. Regarding claim 15, Shima in view of Edholm in further view of Akatsu does not expressly disclose that billing information for a digital television service is sent through said asynchronous interface; however, Examiner takes official notice that it is well known in the art for a digital television service to transmit billing information. It would have been obvious to one of ordinary skill in the art at the time of the invention to send the billing information for the digital television service through the asynchronous interface in order to transmit the billing information.

20. Claims 8, 9, 19, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shima et al (USPN 6,456,714) in view of Edholm (USPN 6,449,269).

21. Regarding claims 8 and 19, Shima discloses a call-in signal processing method for a network switching system using asynchronous and isochronous transfer modes (col. 5, line 4-col. 6, line 31), wherein stream data transferred on a serial bus are exchanged through a gateway between an outside line and an extension node (col. 5, line 4-col. 6, line 31), or between a first extension node and a second extension node (col. 5, line 4-col. 6, line 31), said method comprising: calling one or more extension nodes (col. 5, line 4-col. 6, line 31), each said extension node having a unique physical identifier col. 2, lines 8-38; col. 3, line 60-col. 4, line 3; col. 4, lines 20-29; and col. 5, lines 16-20) where transmitting information to particular devices indicates that each device has a unique identifier; securing one or more isochronous channels on the basis of responses from said extension nodes (col. 5, line 4-col. 6, line 31); allowing said



Art Unit: 2665

extension nodes to start exchanging said stream data (col. 5, line 4-col. 6, line 31); and sending simultaneously a call status of a station of which call status is changed to all the extension nodes connected with said serial bus (col. 7, lines 37-49).

Shima does not expressly disclose that each extension nodes is identified with a unique physical identifier and selectively identified with a unique telephone number comprising at least one of a simplified exchange telephone number and an actual telephone number. However, Shima does disclose that the system is identified using a telephone number (col. 5, lines 5-6) and that the devices in the network can comprise multiple telephonic devices (col. 3, lines 38-42 and col. 5, lines 16-20). Shima also discloses directing voice calls to particular devices (col. 5, lines 16-20) and using a telephone number to direct a call to a particular destination device (col. 5, line 54-col. 6, line 5). Edholm teaches, in a communication system, that each telephone enabled node is identified with a unique physical identifier (IP address) and selectively identified with a unique telephone number comprising at least one of a simplified exchange telephone number and an actual telephone number (key sequences) (col. 5, lines 24-30; col. 6, lines 47-60; and col. 8, line 63-col. 9, line 5, esp. col. 9, lines 2-5). Edholm also teaches that the telephone enabled node stores telephone numbers of called nodes thereby allowing said at least one telephone enabled node to transmit and receive stream data from telephone numbers of other telephone enabled nodes (col. 5, lines 24-30; col. 6, lines 47-60; and col. 8, line 63-col. 9, line 5, esp. col. 9, lines 2-5). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to identify each extension nodes with a unique physical identifier and to selectively identify each extension node with a unique telephone number comprising at least one of a

Art Unit: 2665

simplified exchange telephone number and an actual telephone number in order to permit external parties to direct a call to a specific extension node.

Shima does not expressly disclose selecting, at said gateway, which of an automatic transfer by a number display, a global call-in, or a manual call-in on the basis of setup data. Edholm teaches, in a communication system, that the communication can be a unicast connection (manual call-in) (col. 6, lines 20-28), a multicast/conference connection (global call-in or conference call) (col. 6, lines 20-28), or caller ID (calling line identification technology) (col. 5, lines 39-45). It would have been obvious to one of ordinary skill in the art at the time of the invention to select at the gateway which of an automatic transfer by number display, a global call-in, or a manual call-in on the basis of setup data in order to select the correct number of terminals for which the connection is destined and in order to determine the number of connections needed to complete the call.

22. Regarding claims 9 and 20, Shima discloses a call-out signal processing method for a network switching system using asynchronous and isochronous transfer modes (col. 5, line 4-col. 6, line 31), wherein stream data transferred on a serial bus is exchanged through a gateway between an outside line and an extension node (col. 5, line 4-col. 6, line 31), or between a first extension node and a second extension node (col. 5, line 4-col. 6, line 31), said method comprising: receiving at said gateway a call-out from an extension node (col. 5, line 4-col. 6, line 31); confirming, at said gateway, a call status of call object (col. 5, line 4-col. 6, line 31); securing an isochronous channel for transmission (col. 5, line 4-col. 6, line 31); sending said call status to all the extension nodes connected to said gateway (col. 7, lines 37-49); securing an isochronous channel for reception (col. 5, line 4-col. 6, line 31); allowing said call object to start

Art Unit: 2665

exchanging said stream data, when said call object has responded, while sending, to said extension node which carried out said call-out, a call status that indicates that said call object does not respond, when said call object has not responded (col. 5, line 4-col. 6, line 31); releasing said isochronous channels for transmission and reception, when detecting an on-hook of said extension node which has made said call-out (col. 5, line 4-col. 6, line 31); sending said call status to all the extension nodes connected to said gateway (col. 7, lines 37-49).

Shima does not expressly disclose that each extension node is identified with a unique physical identifier and selectively identified with a unique telephone number comprising at least one of a simplified exchange telephone number and an actual telephone number. However, Shima does disclose that the system is identified using a telephone number (col. 5, lines 5-6) and that the devices in the network can comprise multiple telephonic devices (col. 3, lines 38-42 and col. 5, lines 16-20). Shima also discloses directing voice calls to particular devices (col. 5, lines 16-20) and using a telephone number to direct a call to a particular destination device (col. 5, line 54-col. 6, line 5). Edholm teaches, in a communication system, that each telephone enabled node is identified with a unique physical identifier (IP address) and selectively identified with a unique telephone number comprising at least one of a simplified exchange telephone number and an actual telephone number (key sequences) (col. 5, lines 24-30; col. 6, lines 47-60; and col. 8, line 63-col. 9, line 5, esp. col. 9, lines 2-5). Edholm also teaches that the telephone enabled node stores telephone numbers of called nodes thereby allowing said at least one telephone enabled node to transmit and receive stream data from telephone numbers of other telephone enabled nodes (col. 5, lines 24-30; col. 6, lines 47-60; and col. 8, line 63-col. 9, line 5, esp. col. 9, lines 2-5). Thus, it would have been obvious to one of ordinary skill in the art at the time of the

Art Unit: 2665

invention to identify each extension nodes with a unique physical identifier and to selectively identify each extension node with a unique telephone number comprising at least one of a simplified exchange telephone number and an actual telephone number in order to permit external parties to direct a call to a specific extension node.

### *Conclusion*

23. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Ryman whose telephone number is (571)272-3152. The examiner can normally be reached on Mon.-Fri. 7:00-4:30 with every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571)272-3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2665

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Daniel J. Ryman  
Examiner  
Art Unit 2665

*DR*



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SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600